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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/822,866

04/13/2004

Hiroko Tsukamoto

T36-165693M/RS

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04/17/2006

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EXAMINER

SANEI, HANA ASMAT

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/822,866

Applicant(s)

TSUKAMOTO ET AL.

Examiner

Hana A. Sanei

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/18/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/13/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claim 1-3 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method of manufacturing an LED lamp, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/25/06.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: LED lamp with resist bonding on copper film.

Additionally, the title needs to be amended according to the election restriction.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over

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Ishibashi (JP 2001196641 A) in view of Susumu et al (JP 08-330637) in further view of Okazaki (US 2002/0024299 A1).

Regarding Claim 1, Ishibashi teaches a substrate (1, see at least Fig. 3, 5) coated with a metal pattern formed as an electrically conducting portion including films of copper (3a, 3b), nickel (3c) and gold (3d) laminated successively in this order on the substrate; a light-emitting element (4) fixed on the substrate so as to be electrically connected to the metal pattern; a nickel-free or gold-free (7, exposed portion of substrate) surface of the copper film (3b) of the metal pattern; and a light-transmissive resin (6, resin package).

Ishibashi lacks a resist bonded onto an electrically conducting portion. In the same field of endeavor, Susumu teaches a resist (solder resist film, 7, see at least Figs.1 & 3) bonded onto an electrically conducting portion (top portion of 3, just adjacent to the junction line, 6a of the mold section, 6) in order to prevent cracks formulating in a mold section ([0006]). It should be noted that by adding the resist of Susumu to the top of Ishibashi's electrically conducting portion including the laminated copper, nickel, and gold films, Susumu resist will be displaced over Ishibashi's exposed nickel-free or gold-free surface of the copper film. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to add the resist, as disclosed by Susumu, in the device of Ishibashi in order to prevent cracks formulating in a mold section.

Ishibashi-Susumu lack a resin frame member. In the same field of endeavor, Okazaki teaches a resin frame member (5, reflective case, see at least Fig. 3; [0024])

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fixed onto the substrate (4, chip substrate) through an adhesive agent (epoxy adhesive, [0024]) wherein light transmissive resin (7) is packed in the frame of the resin frame member; and to form such a structure that the resist (7 of Fig. 1 of '637) is at least partially put between the substrate and the resin frame member in order to ensure a high reflection efficiency of visible light ([0024]). It should be noted that Ishibashi-Susumu's resist (7 of Fig. 1 of '637) is at least partially put between the substrate and the resin frame member because the resist is further originally displaced on an area external to Susumu's mold section, 6, Fig. 1 of '637, hence the resist will be sandwiched between the substrate and the resin frame member (5, Fig. 3 of '299). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to add the resin frame member, as disclosed by Okazaki, in the device of Ishibashi-Susumu in order to ensure high reflection efficiency of visible light.

Regarding Claim 2, Ishibashi-Susumu-Okazaki teaches an inner edge of the resist (7 of Fig. 1 of '637) held between the resin frame member (5 of Fig. 3 of '299) and the substrate is visible from the edge of the through-hole (see at least Fig. 2 of '637) of the resin frame member. It should be noted that the through-hole of the frame member is the portion of the frame member that forms a cavity for the light transmissive resin to reside within thereof.

Regarding Claim 3, Ishibashi-Susumu-Okazaki teaches the claimed invention set forth above (see rejection in Claim 1 above) except for the resist (7, Fig. 1 of '637) being shaped like a ring. It would have been obvious matter of design choice to modify the shaping, since applicant has not disclosed that the shape solves any stated problem or

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is for any particular purpose and it appears that the invention would perform equally well with the ring shape. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the resist, in this way in order to prevent cracks formulating in a mold section ([0006] of '637).


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hana A. Sanei whose telephone number is (571) 272-8654. The examiner can normally be reached on Monday- Friday, 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner #3
Hana A. Sanei


JOSEPH WILLIAMS
PRIMARY EXAMINER